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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,016	12/10/2003	Minjie Lin	33280	7499

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THE LAW OFFICE OF KIRK D. WILLIAMS  
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EXAMINER

LE, DEBBIE M

ART UNIT PAPER NUMBER

2168

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/733,016

Applicant(s)

LIN ET AL.

Examiner

DEBBIE M. LE

Art Unit

2168

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-23 are rejected under 35 U.S.C. 102(e) as being anticipated by  
Butehorn et al (US Patent Application publication no. 2004/0132451 A1).

As per claim 1, Butehorn discloses a method performed within a router for  
distributing routing information within the router, the method comprising:

receiving a set of addresses from a client indicating route updates of interest to  
the client and a set of types of routing changes that are of interest (as receives routing  
information from one of the terminals, wherein the routing information specifies reachability of a  
host that is within a data network served by the one terminal) (parg. 0014);

maintaining one or more data structures including information corresponding to  
the set of addresses and the set of types of routing changes that are of interest (as the  
route server modifies a database storing routes reachable over the satellite network based on the  
routing information, i.e., route table) (parg. 0013);

receiving a particular route update (as receiving an update from a route client for a delete route) (parg. 0093); and

notifying the client of the particular route update in response to identifying the particular route update corresponds to both at least one address in the set of addresses and at least one routing attribute in the set of types of routing changes that are of interest (as message is transmitted to the terminals based on the modified route table for updating of respective route table of the terminals) (parg. 0014), and (an external trigger is generated to notify the terrestrial routing protocol of a routing update) (parg. 0134).

As per claim 2, Butehorn teaches wherein said at least one routing attribute includes a change in an interface for reaching an address in the set of addresses (parg. 0040, last 4 lines).

As per claim 3, Butehorn teaches wherein said notifying the client of the particular route update includes notifying the client of the address (parg. 0057).

As per claim 4, Butehorn teaches wherein said at least one routing attribute includes a change in a path from the router to an address in the set of addresses (parg. 0049, last 6 lines).

As per claim 5, Butehorn teaches wherein the address is directly reachable from the router (parg. 0040, last 3 lines).

As per claim 6, Butehorn teaches wherein said at least one routing attribute includes a change in whether an address in the set of addresses is directly reachable or is not directly reachable (parg. 0066-0067, 0090).

As per claim 7, Butehorn teaches wherein said at least one routing attribute includes a change in a distance to reach an address in the set of addresses (parg. 0043).

As per claim 8, Butehorn teaches wherein said at least one routing attribute includes a change in a cost metric to reach an address in the set of addresses (parg. 0070).

As per claim 9, Butehorn discloses a method performed within a device for distributing routing information within the device, the method comprising:

receiving a first set of addresses from a first client indicating route updates of interest to the first client and a first set of types of routing changes that are of interest to the first client (as receives routing information from one of the terminals, wherein the routing information specifies reachability of a host that is within a data network served by the one terminal parg. 0014, and 0057, satellite context identifier which uniquely identifies the customer for a region which is equivalent to a first or a second set of addresses);

receiving a second set of addresses from a second client indicating route updates of interest to the second client and a second set of types of routing changes that are of interest to the second client (as receives routing information from one of the terminals, wherein the routing information specifies reachability of a host that is within a data network served by the one terminal) (parg. 0014) and (satellite context identifier which uniquely identifies the customer for a region (parg. 0057) which is equivalent to a first or a second set of addresses);

maintaining one or more data structures including information corresponding to the first and the second sets of addresses and the first and the second sets of types of routing changes that are of interest (as the route server modifies a database storing routes reachable over the satellite network based on the routing information, i.e., route table) (parg. 0013) and (parg. 0063 that a network operation center (hereinafter “NOC”) provides an address server, which contains a database of all the satellite MAC addresses assigned to all customer networks supported by satellite for each satellite in a given region);

receiving a particular route update (as receiving an update from a route client for a delete route) (parg. 0093) and (parg. 0110, “Route Change Update);

performing one or more lookup operations on said one or more data structures to identify a result corresponding to the particular route update (as table lookups or using queries address server to the NOC, parg. 0054), the result identifying the first client but not the second client, and the particular route update corresponding to a particular type of routing change identified in the first set of types of routing changes that are of interest (as a route server disseminates the collects routes to the terminals for updating of their respective route tables according to the Satellite Context Identifier, which is uniquely identifies the customer for a region) (abstract, last 6 lines) and

notifying the first client but not the second client of the particular route update in response to the result identifying the first client but not the second client (parg. 0063 that a network operation center (hereinafter “NOC”) provides an address server, which contains a database of all the satellite MAC addresses assigned to all customer networks supported by

satellite for each satellite in a given region, parag. 0057, wherein Satellite Context Identifier which uniquely identifies the customer for a region); and

the particular route update corresponds to a particular type of routing change identified in the first set of types of routing changes that are of interest (as message is transmitted to the terminals based on the modified route table for updating of respective route table of the terminals) (parg. 0014, 0012) and (an external trigger is generated to notify the terrestrial routing protocol of a routing update) (parg. 0134).

As per claim 10, Butehorn teaches wherein said one or more data structures maintains a single set of types of routing changes that are of interest to the first and the second clients based on the first and the second sets of types of routing changes that are of interest (parg. 0188).

As per claim 11, Butehorn teaches wherein said information maintained by said one or more data structures identifies different states of interest by clients, wherein said different states of interest include: whether the first client, the second client, both the first and second clients, and neither the first or second client are interested in a particular type of routing change (parg. 0189, i.e., route change update message and format of a route change update entry, wherein route change update messages also includes satellite context identifier).

As per claim 12, Butehorn teaches wherein a single indication of said different states of interest by clients is maintained for all of the addresses in the first and second sets of addresses (parg. 0105, 0125 ).

As per claim 13, Butehorn teaches wherein an indication of said different states of interest by clients is maintained for each address of said first and second sets of addresses (parg. 0105, 0125).

As per claim 14, Butehorn discloses a method performed within a device for distributing routing information within the device, the method comprising:

maintaining a data structure of route dependencies (Fig. 8A, i.e., next hub network address) including routes of interest to one or more clients (as Satellite Context Identifier, which is uniquely identifies the customer for a region) (Fig. 8A, parg 0057);

receiving a routing update identifying a particular route (as receiving an update from a route client for a delete route) (parg. 0093) and (parg. 0110, "Route Change Update);

identifying that no client of said one or more clients has subscribed to receive an update corresponding to the particular route; identifying a second particular route dependent on the particular route; identifying a particular client of said one or more clients has subscribed to receive an update corresponding to the second particular route (as IRSRP redirect routing provides point-to-point fashion to another ST port the proper route) (parg. 0086); and

notifying the particular client of the update to the particular route in response to said identifying the particular client has subscribed to receive an update corresponding to the second particular route (as IRSP redirect routing message within an ST port is defined as an ISRP redirect client) (parg. 0086).

As per claim 15, Butehorn teaches identifying a change corresponding to the second particular route matches a types of routing changes that are of



Art Unit: 2168

interest to the particular client; and wherein said notify the particular client is performed in response to said identifying the particular client has subscribed to receive an update corresponding to the second particular route and said identifying the change corresponding to the second particular route matches a types of routing changes that are of interest to the particular client (parg. 0070, 0072).

Claims 16, 17 are rejected under the same rationale as state in independent claim 1 arguments.

Claims 18, 20 and 22 are rejected under the same rationale as state in independent claim 14 arguments.

Claims 19, 21, and 23 have the same limitations as claim 15, therefore, they are rejected under the same subject matter.

### ***Conclusion***

The prior art made of record, listed on form PTO-892, and not relied upon, if any, is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DEBBIE M. LE whose telephone number is (571) 272-4111. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Vo can be reached on (571) 272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2168

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DEBBIE LE  
PRIMARY EXAMINER

3/31/06